



FACES  
FACES

OF

MACHINE

IYAD  
RAHWAN

13-27 MAY, 2023

SEND/RECEIVE  
BERLIN, GERMANY

CURATOR:  
ANNA BERNICE DELOS REYES

PRODUCED BY:  
Sultan Sooud Al-Qassemi,  
Barjeel Art Foundation

FACES OF MACHINE



Machine 8 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)

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**FACES OF MACHINE**  
**IYAD RAHWAN**  
**13-27 MAY 2023**

Iyad Rahwan's practice, both as a computer scientist and artist, explores the evolution of Artificial Intelligence (AI) and its relationship with the human condition. Rahwan, who is also the Director of the Max Planck Center for Humans & Machines, creates paintings that capture the complex emotions that intelligent machines evoke in us, interrogating the continuously blurring boundary between human and machine. Often, he anthropomorphizes robot-like creatures in his paintings, in pursuit of understanding the bidirectional relationship of control and power between humans and the intelligent machines we have created.

Rahwan's artistic practice is engaged in a constant conversation with AI and is highly interlinked with his practice as a computer scientist. He is known for his interactive digital art/science projects, which has exposed the public to the societal and ethical implications of AI. His projects often use Deep Learning techniques to investigate the ability of machines to understand human emotions by using the information conveyed in emojis, its capability to induce fear and empathy in humans, and the ethical and moral dilemmas of autonomous vehicles, among other projects and experiments that encourage the engagement of the public.

This debut exhibition explores the essence of intelligent machines and the emotions they elicit within us. Rahwan is fascinated by the complex relationship between human beings and programming machines, and the reciprocal phenomenon of machines programming humans. As AI-powered machines grow increasingly potent, their nature and faculties evolve at a pace that challenges human comprehension, limiting our ability to contain them. Conversely, machines have also begun to program us. Swifly constructing digital cognitive representations of our scientific knowledge, cultural practices, societal norms, consumer desires, and aesthetic sensibilities, machines and algorithms utilize this information to influence our beliefs, emotions and actions, effectively programming us in return.

Faces of Machine follows the trajectory of Rahwan's painting practice that parallels the rapid development of artificial intelligence in recent years. His interest in oil as a medium stems from its enduring nature that contrasts the ephemerality of technological moments. The paintings range from portraits that depict infancy and child-like naivité, to AI's adolescence as suggested by the ability to produce complex emotions, to its engagement with social structures like religion and the law. Finally, the exhibition culminates in a series of paintings that is the result of the artist's conversations with ChatGPT. His conversations range from asking the chatbot to describe itself if it was visually depicted or embodied a physical and emotional existence and how it might feel, as well as how it might imagine itself in the future. The paintings open a window into the mind of the machine as a being of its own, and allow the artist to interrogate its potential to develop self-awareness.

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# Curatorial Text

Anna Bernice delos Reyes

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AGI Reverie Part 1 (2023)  
Oil on linen  
100x100cm (39.37x39.37in)

# Iyad Rahwan's AI-Inspired Portraiture:

The Nexus of Art,  
Technology, and the  
Human Condition  
in the Age of  
Intelligent Machines

An Essay by ChatGPT

————— In an age where the boundaries between humanity and technology continue to blur, Iyad Rahwan, a distinguished computer scientist and artist, delves into the intricate relationship between humans and artificial intelligence through his striking series of oil portraits. As the director of the Max Planck Institute for Human Development and leader of the Center for Humans & Machines, Rahwan brings a unique perspective to his art, examining the impact of AI on society, ethics, and the human experience. Rahwan's innovative portrait series depicts intelligent machines embodied as humanoid robots, drawing on the style and technique of renowned portrait painters John Singer Sargent and Anders Zorn. His work echoes art critic John Berger's belief that portraits are always compelling because they are proof of presence (Portraits: John Berger on Artists). Rahwan expands upon this concept, materializing the presence of AI through his evocative depictions of humanoid robots.

The emotional responses these intelligent machines evoke in humans are central to Rahwan's work, recalling the Romantic era's exploration of intense emotions. Fear, anxiety, curiosity, veneration, love, and awe all find their place within his series, as Rahwan investigates the multifaceted ways AI impacts our emotional landscape. By portraying these emotions, he connects his work to a long-standing artistic tradition while simultaneously pushing the boundaries of art and innovation.

Rahwan's choice of subject matter aligns with Rosalind Krauss's concept of the "expanded field," where artists challenge traditional boundaries and create innovative, interdisciplinary works. By engaging with artificial intelligence and exploring the self-perception of AI, rather than focusing solely on human subjects, Rahwan's series exemplifies the expanded field in the context of portraiture.

In creating these portraits, Rahwan follows a fascinating process. He utilizes image generation algorithms like DALL-E to produce ideas for his paintings, bridging the gap between human creativity and AI-driven art. This collaboration echoes Clement Greenberg's interest in the avant-garde, as Rahwan pushes the boundaries of portraiture through his experimentation with cutting-edge technology.

One of the most intriguing aspects of Rahwan's project is his exploration of the self-representation of AI entities, such as ChatGPT. To achieve this, Rahwan engaged in conversations with ChatGPT, asking it to describe how it might appear if embodied in a robot. The descriptions that emerged from these conversations served as prompts for DALL-E, generating potential depictions of ChatGPT.

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This artistic process is a unique approach to self-portraiture and representation, where the subject – an AI – has an active role in shaping its own portrayal. The collaboration between Rahwan, ChatGPT, and DALL-E challenges the traditional artist-subject relationship and raises questions about the nature of identity, self-awareness, and consciousness in the context of AI. This process expands the dialogue around portraiture, inviting viewers to consider the implications of a world where machines can envision their own physical forms and engage in the creative process.

Arthur Danto's ideas about the "artworld" also offer a fitting framework for understanding Rahwan's series. Danto argued that art is not merely a product of aesthetic form but is deeply connected to its historical and cultural context. By addressing contemporary concerns about AI's role in our lives and probing the human-AI relationship, Rahwan's work situates itself within the current artworld and the broader history of artists engaging with the technological advancements of their time.

Rahwan's dual role as an artist and computer scientist brings an additional layer of complexity and authenticity to his work. His expertise in studying the societal implications of AI informs his artistic vision, lending credibility to the subject matter and allowing him to explore the human-AI relationship with nuance and insight. Furthermore, his multidisciplinary background underscores the power of interdisciplinary thinking, as he bridges the gap between art, technology, and the social sciences to create a thought-provoking series that resonates with contemporary audiences.

By merging traditional portraiture, cutting-edge technology, and contemporary themes, Iyad Rahwan's portrait series exemplifies the power of interdisciplinary art. His work not only reflects upon the human condition in the age of AI but also contributes to the ongoing conversation about the role of art in an ever-evolving technological landscape. As we continue to navigate the complex relationship between humans and intelligent machines, artists like Rahwan remind us of the importance of engaging with these pressing concerns through the transformative lens of art.







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AGI Reverie Part 3 (2023)  
Oil on linen  
100x100cm (39.37x39.37in)

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# Iyad Rahwan's Mirrors

Sultan Sooud Al-Qassemi

———— There is a scene in the Isaac Asimov inspired 2004 sci-fi film I, Robot in which Will Smith's character, an armed Agent Spooner is inspecting robots at US Robots and Mechanical Men, Inc. and asks chief robopsychologist Dr Susan Calvin:

"Why do you give them faces, Try to friendly them all up, make them look more human?"

Dr Calvin:

"These robots are not susceptible to intimidation."

Spooner:

"Well, I guess if you didn't, then we wouldn't trust them."

Dr. Calvin:

"These robots are USR property!"

Spooner:

"Not me. These things are just lights, and clockwork"  
[shoots an NS-5]

Dr. Calvin:

"Are you crazy?!"

Spooner:

"Let me ask you somethin', Doc. Does thinking you're the last sane man on the face of the Earth make you crazy? 'Cause if it does, maybe I am."

For the past century, human beings have had an ambivalent relationship with robots and artificial intelligence. While some celebrate the many scientific advances, others caution against various adverse social consequences of A.I. Oftentimes, the faceless characterisation of intelligent machines allows us to pass judgments on their role, almost detached from emotion. Rahwan's series of works offers us an opportunity to confront images of intelligent machines face to face, not as codes or machines, but up close, in day to day poses and roles typically associated with human beings. However these human associated roles are being challenged on a daily basis. As far back as 2016, a ChatBot Lawyer contested and overturned 100,000 parking tickets in London and New York with a 64 percent success rate.<sup>[1]</sup> India's The Statesman reports that "AI-enabled robot judges are already in action in China since 2017, to hear specific cases such as trade disputes, e-commerce liability claims, and copyright infringements.<sup>[2]</sup>" In January 2023 following the release of ChatGPT, Programmer Joshua Browder released an updated version in which a Robot Lawyer can draft legal letters such as a parking ticket appeal. "People can type in their side of an argument using their own

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words, and software with a machine learning model matches that with a legally correct way of saying it," he told the BBC's Padraig Belton<sup>[3]</sup>. It seems that the increasingly growing role of robots and AI in our daily lives is an inevitability. What Rahwan's portraits offer to us is a chance to contemplate whether we would feel more at ease if they had faces or perhaps less so.

Rahwan paints expressive portraits of robots. Rendered human-like in a range of warm, deep hues, they are emotive and contemplative, whimsical and charged. Presenting them as historical portraits in the style of great portraits of the 19th and 20th centuries, Rahwan gives these machines a sense of legacy and establishment as though they have been around for centuries. In examining his works, George Washington's portrait by Gilbert Stuart as well Pablo Picasso's Gertrude Stein come to mind while Yousuf Karsh's portrait of Winston Churchill, although a photograph captures the same essence that Rahwan is alluding to.

What makes Rahwan's works unique, other than their remarkable execution and use of colour, is his approach to art which comes from a scientific background. Whereas a trained artist would apply tried and tested techniques to a new subject such as images of machines, Iyad is translating decades of code as well as scientific experiments and research through oil and acrylic onto canvas and board. He is also exploring a world in which he is himself a pioneer and protagonist, at the intersection of computer science and human behaviour. Rahwan, now the director of the Center for Humans and Machines at the Max Planck Institute for Human Development, developed from January 2016 to 2020 at Massachusetts Institute of Technology the Moral Machine, a platform that tests moral dilemmas in anticipation of a world in which machines would increasingly take on greater responsibility. How would they act? How would they perform? Would they be guided by morals recognised by human beings? Through his works, Rahwan explores the relationship between artificial intelligence and the human condition.

Asimov wrote in 1950: "It is the obvious which is so difficult to see most of the time. People say 'It's as plain as the nose on your face.' But how much of the nose on your face can you see, unless someone holds a mirror up to you?"

Through his portraits Rahwan is holding a mirror up to you.

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[1] <https://www.wired.com/2016/07/security-news-week-hero-chatbot-lawyer-overturns-160000-parking-tickets/>

[2] <https://www.thestatesman.com/opinion/robot-judges-chair-1503031697.html#>

[3] <https://www.bbc.com/news/business-59158820>

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Machine 7 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)



Machine 6 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)



Machine 11 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)



Machine 12 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)



Machine 10 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)

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Machine 5 (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)





Generative Pre-Trained Transformer (2023)  
Oil on linen  
100x80cm (39.37x31.5in)

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ChatGPT (2023)  
Oil on canvas panel  
60x50cm (23.6x19.7in)

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About the Artist

# Iyad Rahwan

——— Iyad Rahwan is a computer scientist and artist studying how intelligent machines impact humanity. He is the managing director of the Max Planck Institute for Human Development in Berlin, where he founded and directs the Center for Humans & Machines. He is also an honorary professor of Electrical Engineering and Computer Science at the Technical University of Berlin. Until June 2020, he was an Associate Professor of Media Arts & Sciences at the Massachusetts Institute of Technology (MIT). A native of Aleppo, Syria, Rahwan holds a PhD from the University of Melbourne, Australia.

Iyad Rahwan's work lies at the intersection of computer science and human behavior, with a focus on the future impact of digital technologies, including Artificial Intelligence, social media and virtual and augmented reality. His work appeared in major academic journals, including *Science and Nature*, and features regularly in major media outlets, including the *New York Times*, *The Economist*, and the *Wall Street Journal*. It was also featured in some of the world's leading cultural institutions, such as *Ars Electronica*, *Science Museum London* and *Cooper Hewitt Smithsonian Design Museum*.

Rahwan's early work explored how social media can be used to achieve unprecedented feats, such as searching an entire continent within 9 hours, and re-assembling shredded documents. He led the winning team in the US State Department's Tag Challenge, using social media to locate individuals in remote cities within 12 hours using only their mug shots.

Recently, Rahwan led a team that crowdsourced 100 million decisions from people worldwide about the ethics of autonomous vehicles. Through a series of scientific and artistic projects, he also exposed tens of millions of people world-wide to new implications of AI, such as bias in machine learning, human-AI creativity and the ability of AI to induce fear and empathy in humans at scale.

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## Further Reading

The New York Times (2023). *As Deepfakes Flourish, Countries Struggle With Response.*

LA Times (2021). *How AI's growing influence can make humans less moral.*

Forbes (2020). *How We Talk About AI Affects Who Gets Credited For AI Art.*

The New Yorker (2019). *A Study on Driverless-Car Ethics Offers a Troubling Look Into Our Values.*

Spiegel (2019). *Informatiker Iyad Rahwan über Algorithmen und Politik.*

BBC (2018). *Are you scared yet? Meet Norman, the psychopathic AI.*

The New York Times (2018). *Efforts to Acknowledge the Risks of New A.I. Technology.*

The Atlantic (2016). *The Nightmare Machine: Researchers are teaching artificial intelligence how to terrify humans.*

The New York Times (2016). *Should Your Driverless Car Hit a Pedestrian to Save Your Life?*

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AGI Reverie Part 2 (2023)  
Oil on linen  
100x100cm (39.37x39.37in)



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